

there was also a disturbance near 45° N., 45° W., that moved steadily eastward, its center on the 14th being near 47° N., 32° W. Judging from reports received, this low suddenly curved southward and then recurved toward the northeast, as on the 15th it was central near 40° N., 35° W., and on the 16th near 48° N., 21° W. It moved but little during the next 4 days and gradually filled in.

From the 13th to 15th gale reports were received from vessels in widely scattered parts of the ocean, while on the 16th and 17th the stormy conditions were confined to a limited area over the eastern section of the steamer lanes.

On the morning of the 18th the tropical disturbance previously referred to was in the vicinity of Swan Island. On the same day there were also areas of low pressure off the coast of Newfoundland and over the eastern section of the steamer lanes, both lows being accompanied by moderate to strong gales. On the 18th there was also a shallow depression central near 35° N., 52° W., that was surrounded by moderate winds.

On the 19th the tropical disturbance was in the vicinity of the Isle of Pines, while the two northern lows of the 18th had changed but little in position and intensity. The shallow depression moved rapidly eastward, increasing in intensity, and on the 19th was central near 32° N., 37° W., with strong southerly gales in the easterly quadrants.

On the 20th, as shown on Chart VIII, the tropical disturbance was over the Florida Straits, with moderate weather the rule over the remainder of the ocean, although a well-defined low was central near the Azores.

Charts IX to XIII cover the period from the 21st to 25th, inclusive, and give an idea of the track of the tropical hurricane of that period. On the 25th this storm was central near 38° N., 43° W., while both the American and European coasts were being swept by severe gales.

By the 26th the tropical storm had practically filled in, although gales were reported near 33° N., 47° W., as shown by storm reports. On the 26th there were also lows over the province of Quebec, in the mid-eastern section of the steamer lanes, and over the North Sea, with moderate to strong gales near the respective centers. By the 27th, the low over the steamer lanes had moved eastward and was now central near 50° N., 17° W., with heavy weather prevailing between the 5th and 30th meridians.

On the 27th there was a depression near 37° N., 67° W., that afterwards developed in intensity, although of limited extent. On the 28th the center of the northern low was near the English Channel, while the storm area extended from the 40th to 55th parallels and 10th to 30th meridians. During the next 48 hours this disturbance moved but little and gradually filled in. On the 30th Belle Isle was near the center of a low, and on the same day there was also an area of low pressure off the coast of southern Europe.

On the morning of the 31st southwesterly winds of force 3 to 5 were reported along the American coast between Hatteras and the Virginia Capes that afterwards increased to moderate gale force. On the 31st there was a severe disturbance near 55° N., 27° W., and moderate to strong gales swept the steamer lanes between the 15th and 30th meridians.

OCEAN GALES AND STORMS, OCTOBER, 1926

Vessel	Voyage		Position at time of lowest barometer		Gale began	Time of lowest barometer	Gale ended	Lowest barometer	Direction of wind when gale began	Direction and force of wind at time of lowest barometer	Direction of wind when gale ended	Highest force of wind and direction	Shifts of wind near time of lowest barometer
	To—	From—	Latitude	Longitude									
NORTH ATLANTIC OCEAN													
Tuscaloosa City, Am. S. S.	Port Said	Boston	40 06 N.	43 00 W.	Oct. 2	2a., 2	Oct. 4	29.65	N	N	NW	NNW, 10.	
Henry Holmes, Br. S. S.	St. Thomas	St. Vincent	Off St.	Lucia	3	7p., 3	4	29.80	Var	SE, 6	SE	—, 8	ESE-SE.
Lord Antrim, Br. S. S.	Sydney, N. S.	Belfast	55 02 N.	18 24 W.	8	9 p., 8	9	29.38	W	WNW, 7	NW	NW, 8	W-NW.
Brush, Am. S. S.	Galveston	Rotterdam	36 00 N.	70 38 W.	9	4 p., 9	10	29.90	NNW	NNW, 7	NW	NNW, 8	Steady.
Stockholm, Swed. S. S.	New York	Gothenburg	58 22 N.	9 35 W.	9	5 a., 9	11	28.93	NNW	NE, 6	W	NE, 10	NW-N-NE.
Edingham, Am. S. S.	Hamburg	Pensacola	53 32 N.	8 42 E.	9	5 a., 10	10	28.77	SW	WSW, —	SW	NW, 10	W-WSW.
Breedijk, Du. S. S.	Rotterdam	Montreal	53 00 N.	29 35 W.	11	11p., 11	12	29.36	WSW	WSW, 5	NNW	W, 10	
West Hika, Am. S. S.	Mobile	Bremen	48 37 N.	22 41 W.	14	Noon, 14	19	29.53	NE	E, 9	ESE	E, 9	NE-E-ESE.
Nieuw Amsterdam, Du. S. S.	New York	Rotterdam	48 40 N.	25 34 W.	16	6 a., 16	17	29.86	ENE	ENE, 7	E	ENE, 9	Steady.
Columbus, Ger. S. S.	Cherbourg	New York	48 38 N.	28 50 W.	17	Mdt., 17	18	29.71	E	NE, 6	NE	—, 9	
Athena, Am. S. S.	New Orleans	Cristobal	16 30 N.	82 15 W.	18	Noon, 18	19	28.75	NE	Calm	SSE	S, 12	N-Calm-S.
Topa Topa, Am. S. S.	do	Glasgow	41 21 N.	53 28 W.	18	7 p., 18	18	29.36	SE	SE, 11	NE	SE, 11	SE-NE.
Mojave, Am. S. S.	Providence	Colon	18 30 N.	82 50 W.	18	1 a., 19	19	28.06	NE	ENE, 12	SSE	—, 12	ENE-N-SSW.
Selma City, Am. S. S.	Mobile	San Pedro	20 28 N.	84 19 W.	19	4 p., 19	20	29.14	NE	NE, 12	SW	—, 12	NE-N.
St. Joseph, Fr. S. S.	Havre	Colon	30 55 N.	35 43 W.	19	2 p., 19	19	29.48	S	SSE, 8	SW	SSE, 10	SSE-SW.
Zacapa, Am. S. S.	New York	Central America	24 24 N.	80 54 W.	20	6 p., 20	21	28.24	E	NW, 12	—	—, 12	E-NE-NW.
Ulua, Br. S. S.	do	Habana	24 04 N.	82 12 W.	20	2 a., 20	20	29.07	ENE	N, 12	NNW	N, 12	NNE-NNW.
San Blas, Br. S. S.	Habana	Limon	23 20 N.	83 00 W.	19	10 a., 20	20	29.44	E	NNE, 10	NNW	NNE, 12	Steady.
Cripple Creek, Am. S. S.	Galveston	Liverpool	48 07 N.	26 52 W.	20	7 p., 20	23	29.78	ESE	ENE, 10	NW	ENE, 10	NNE-N.
H. H. Asquith, Br. S. S.	Colon	Newark	26 48 N.	76 25 W.	21	1 p., 21	21	28.44	SSE	S, 12	NW	S, 12	S-SW-NW.
Woensdrecht, Du. M. S.	Thameshaven	Texas City	27 25 N.	73 45 W.	21	—, 21	21	28.08	SE	—, 12	NNW	—, 12	SE-W.
Motocarlina, Belg. S. S.	Baton Rouge	Antwerp	40 12 N.	37 26 W.	21	Noon, 21	22	29.52	NW	NW, 7	NW	NW, 9	
Tulsa, Am. S. S.	Antwerp	Jacksonville	33 07 N.	68 16 W.	22	12.30 p., 22	22	29.14	SSE	NNE, 12	N	NNE, 12	NE-NNE.
Nitonian, Br. S. S.	do	Galveston	29 29 N.	64 13 W.	21	8 a., 22	22	29.43	SSW	S, 6	NNW	WSW, 11	SSW-W-N.
Brush, Am. S. S.	Galveston	Rotterdam	49 30 N.	17 12 W.	21	4 p., 22	23	29.60	NE	N, 10	NE	N, 10	NE-N.
San Guerri, Br. S. S.	Tuxpam	London	35 20 N.	62 40 W.	22	9 p., 22	23	29.28	NNE	N, 10	NW	NNW, 12	N-NW.
Kerhonkson, Am. S. S.	Londonderry	Norfolk	40 05 N.	70 15 W.	24	6 p., 24	25	29.80	SE	SE, 7	SW	SW, 10	SW-W.
St. Andrew, Br. S. S.	Rotterdam	Galveston	38 50 N.	45 00 W.	24	Noon, 24	25	29.06	SSW	SW, 10	NNE	NW, 10	SSW-NW.
Stockholm, Swed. S. S.	Gothenburg	New York	40 30 N.	69 42 W.	25	7 p., 25	25	29.38	S	SW, 9	N	SSW, 11	S-SW-W.
Texas, Fr. S. S.	Havre	New Orleans	33 42 N.	44 12 W.	25	10 p., 25	26	29.51	W	SE, 9	E	WSW, 10	WSW-SE.
Welshman, Br. S. S.	Avonmouth	Montreal	50 16 N.	33 16 W.	25	8 a., 25	26	29.25	SW	NW, 8	NNE	—, 10	W-NW.
Minnekahda, Am. S. S.	New York	Plymouth	50 15 N.	4 12 W.	24	Noon, 25	26	29.25	WNW	NW	NW	NW, 9	WNW-NW.
Adra, Br. S. S.	Portland, Eng.	Hampton Roads	46 06 N.	24 04 W.	26	Noon, 26	27	29.48	WNW	WNW, —	N	—, 11	Steady.
Topa Topa, Am. S. S.	New Orleans	Glasgow	53 46 N.	19 52 W.	25	4 p., 26	26	29.34	SE	SE, 5	E	SE, 10	SE-E.
Hog Island, Am. S. S.	Gibraltar	New York	37 42 N.	67 10 W.	27	Mdt., 27	29	29.65	NW	NW, 9	—	NW, 9	SE-NW.
Canadian Freighter, Br. S. S.	Glasgow	Colon	44 20 N.	21 15 W.	26	4 a., 27	28	29.27	SW	NNW, 9	N	NNW, 10	WNW-N.
Topa Topa, Am. S. S.	New Orleans	Glasgow	54 14 N.	18 04 W.	27	4 a., 27	28	29.34	E	ENE, 2	NE	NE, 11	E-NE.
Amsterdam, Du. S. S.	Amsterdam	Baton Rouge	31 45 N.	55 10 W.	28	2 p., 28	29	29.55	SSE	SW, 10	NNW	SW, 10	SSW-SW.
Athlone, Br. S. S.	Batoum	London	42 53 N.	9 20 W.	27	2 a., 29	20	29.05	S	N, —	N	N, 9	Steady.
Colonian, Br. S. S.	Montreal	Avonmouth	55 59 N.	24 33 W.	30	7 p., 31	Nov. 1	29.18	SE	W, 8	W	ESE, 10	SSW-WSW.
Hoxie, Am. S. S.	Hampton Roads	Glasgow	55 12 N.	15 45 W.	31	4 p., 31	1	29.66	SSE	SSE, 8	WSW	SSE, 11	SSE-SSW.

Ocean gales and storms, October, 1926—Continued

Vessel	Voyage		Position at time of lowest barometer		Gale began	Time of lowest barometer	Gale ended	Lowest barometer	Direction of wind when gale began	Direction and force of wind at time of lowest barometer	Direction of wind when gale ended	Highest force of wind and direction	Shifts of wind near time of lowest barometer
	To—	From—	Latitude	Longitude									
NORTH PACIFIC OCEAN													
Yankee Arrow, Am. S. S.	Shanghai	Los Angeles	33 01 N.	135 38 E.	Oct. 1	6 p., 3	Oct. 3	29.85	N	N, 8	N	N, 8	N-ENE.
Shidzuka Maru, Jap. S. S.	Yokohama	Victoria	48 48 N.	145 20 W.	2	8 p., 2	4	29.43	ESE	ENE, 5	S	SSE, 8	ENE-SSE.
Shabonee, Br. S. S.	San Pedro	China	33 18 N.	150 52 E.	2	9 p., 2	2	29.55	S	SW, 10	W	SW, 10	8-SW-W.
Gyokoh Maru, Jap. S. S.	Bellingham	Kobe	41 20 N.	148 06 E.	2	2 p., 2	2	29.18	SSE	SW, 8	WNW	SE, 9	8 pts.
Pres. Lincoln, Am. S. S.	San Francisco	Manila	34 50 N.	152 30 E.	2	11 p., 2	3	28.45	S	SW, 12	NW	SW, 12	8-NNW.
West Prospect, Am. S. S.	do	Yokohama	35 24 N.	152 20 E.	2	10 p., 2	3	29.36	S	S, 6	NW	N, 10	
William Penn, Am. S. S.	Honolulu	Balboa	14 05 N.	104 21 W.	2	6 p., 2	3	29.55	S	S, 8	S	S, 8	Steady.
West O'Rowa, Am. S. S.	Otaru	San Pedro	46 00 N.	153 00 E.	2	Noon, 3	4	29.10	SE	NE, 3	N	NNW, 8	SSE-NE-NW.
West Hixton, Am. S. S.	Portland	Nagoya	50 00 N.	134 00 W.	5	1 p., 5	7	29.33	WSW	SSW	NW	WNW, 8	SSE-NW.
Meton, Am. S. S.	Cebu	Portland	18 03 N.	131 31 E.	6	9 p., 6	7	28.93	NW	WSW, 12	SE	WSW, 12	W-SW.
West Holbrook, Am. S. S.	Yokohama	do	50 42 N.	149 22 W.	6	Noon, 8	8	30.10	W	NW, 7	NNW	NW, 9	W-NW.
Frank G. Drum, Am. S. S.	San Pedro	Honolulu	33 15 N.	121 07 W.	7	8 a., 7	8	29.83	W	NW, 6	N	—, 8	W-N.
China Arrow, Am. S. S.	Taku Bar	San Francisco	48 54 N.	168 30 E.	7	7 a., 8	8	29.33	S	S, 9	S	S, 10	Steady.
Africa Maru, Jap. S. S.	Yokohama	Victoria	48 56 N.	160 38 E.	7	Noon, 7	8	29.50	S	SSE, 8	WNW	SSE, 10	S-SSE.
Levant Arrow, Am. S. S.	Hongkong	San Francisco	38 42 N.	133 10 W.	8	4 p., 8	8	29.42	WNW	W, 9	W	W, 10	WNW-W.
City of Vancouver, Br. S. S.	Osaka	Victoria	48 36 N.	133 38 W.	8	8 a., 9	9	29.01	NE	ENE, 9	NE	ENE, 9	NE-ENE.
El Oso, Br. S. S.	Yokohama	Tsingtau	31 22 N.	129 20 E.	8	4 p., 8	9	29.85	NNW	NNE, 8	NE	NE, 9	Steady.
Pres. Monroe, Am. S. S.	San Francisco	Kobe	30 45 N.	152 30 E.	11	7 a., 12	12	29.13	SW	NE, 12	N	NE, 12	SW-NE.
Korea Maru, Jap. S. S.	do	Yokohama	33 10 N.	152 45 E.	11	1 p., 12	12	29.75	SW	NE, 9	E	NE, 9	
Makiki, Am. S. S.	Bellingham	Honolulu	42 32 N.	136 16 W.	13	3 p., 13	13	29.04	SSE	S, 9	S	S, 9	SSE-S.
Harold Dollar, Br. S. S.	Taku Bar	San Francisco	44 39 N.	151 00 W.	13	Noon, 14	15	29.10	W	W, —	WNW	NW, 12	W-WNW.
Las Vegas, Am. S. S.	Columbia Riv.	Japan	51 08 N.	143 05 W.	14	Noon, 14	15	29.68	SE	NNE, 4	NE	NNE, 8	4 pts.
West Hixton, Am. S. S.	Portland	Nagoya	50 00 N.	177 20 E.	16	9 a., 16	17	29.03	SW	SW, 9	SSW	SW, 9	
Iwatesan Maru, Jap. S. S.	Yokohama	San Francisco	46 47 N.	151 25 W.	20	4 p., 20	21	28.87	SE	SE, 8	S	SE, 8	SE-S.
Biyo Maru, Jap. S. S.	Muroran	Vancouver	46 58 N.	179 25 W.	20	Noon, 21	21	28.86	SE	NW, 8	NNW	NW, 8	W-NW-N.
West Calera, Am. S. S.	Hongkong	San Francisco	42 42 N.	167 30 W.	20	4 p., 21	23	29.00	SE	WNW, 7	NW	N, 9	
Meton, Am. S. S.	Cebu	Portland	44 52 N.	167 45 W.	21	1 p., 21	23	28.88	NE	ENE, 5	WNW	NW, 9	N-NW.
Harold Dollar, Br. S. S.	Taku Bar	San Francisco	48 47 N.	156 15 W.	22	1 p., 23	23	28.55	N	NW, 9	NW	NW, 9	NNW-NW.
Makens, Am. S. S.	Port Angeles	Honolulu	36 50 N.	142 40 W.	21	4 p., 22	24	29.41	SE	SW, 8	W	SW, 10	
Las Vegas, Am. S. S.	Columbia Riv.	Japan	51 10 N.	177 15 W.	23	2 p., 23	24	29.50	WNW	W, 4	WNW	WNW, 10	Steady.
Do	do	do	46 00 N.	154 30 E.	27	9 p., 27	28	29.12	NW	NW, 9	NNW	NW, 10	Steady.
Pres. Harrison, Am. S. S.	San Francisco	Kobe	31 17 N.	153 39 E.	26	1 s., 27	27	29.82	SSW	SSW, 6	SW	SSW, 9	SSW-SW.
Santa Cecilia, Am. S. S.	do	Providence	14 57 N.	96 04 W.	27	Noon, 27	27	29.79	NE	NE, 9	NNE	NE, 10	Steady.
Lurline, Am. S. S.	Seattle	Honolulu	38 05 N.	141 55 W.	27	7 p., 27	28	29.58	SE	SE, 8	S	SE, 8	SE-S.
Wheatland Montana, Am. S. S.	Orient	Seattle	45 55 N.	160 15 E.	27	—, 29	30	29.00	NW	NW, 9	NW	NW, 10	Steady.
Gyokoh Maru, Jap. S. S.	Osaka	Coos Bay	49 30 N.	152 40 W.	29	1 a., 29	30	29.15	S	SE, 8	S	SE, 8	Steady.
SOUTH ATLANTIC OCEAN													
California, Dan. S. S.	Rotterdam	Buenos Aires	25 14 S.	43 00 W.	15	8 a., 15	17	29.72	NE	NE, 7	SW	SW, 9	NE-SW.

551.506 (265.2)
NORTH PACIFIC OCEAN

By WILLIS E. HURD

The Aleutian Low deepened rapidly in October, and was this month central along the eastern Aleutian chain and the northwestern part of the Gulf of Alaska, the lowest average pressure being 29.44 inches, at Kodiak. Over the area from Juneau to Dutch Harbor pressures were below normal by 0.13 to 0.21 inch. Under the influence of the cyclone abnormally heavy rains for the month occurred over a great region along the coast from Alaska to central California and thence southwestward to the Hawaiian Islands. At Honolulu 1.61 inches of rain fell from the 23d to the 25th, inclusive, and was directly traceable to the "widespread Aleutian low" on those dates, according to the official there. At Juneau, in addition to great rainfall, there were nearly 4 inches of snow. Along the northern steamer routes rain squalls were frequent and hail fell on several days.

The North Pacific high was fairly stable during the first decade of October, but thereafter was much weaker and more variable in position, at times being displaced almost completely by the northern low. Throughout its whole average area, from the California coast to Midway Island, pressures were slightly below normal.

The following table indicates the barometric conditions:

TABLE 1.—Averages, departures, and extremes of atmospheric pressure at sea level at indicated hours, North Pacific Ocean, October, 1926

Station	Average pressure	Departure from normal	Highest	Date	Lowest	Date
	Inches	Inch	Inches		Inches	
Dutch Harbor ¹	29.48	-0.21	30.42	8th	28.66	18th
St. Paul ^{1,2}	29.61	-0.05	30.40	7th	28.80	21st
Kodiak ¹	29.44	-0.15	30.14	8th	28.50	23d
Midway Island ¹	30.01	-0.04	30.16	24th	29.88	28th
Honolulu ¹	29.96	-0.04	30.06	16th	29.80	10th
Juneau ¹	29.74	-0.13	30.42	28th	29.12	15th
Tatoosh Island ¹	29.97	-0.06	30.37	28th	29.35	9th
San Francisco ^{1,4}	29.97	-0.03	30.20	24th	29.73	8th
San Diego ^{1,4}	29.91	-0.02	30.05	15th	29.58	7th

¹ P. m. observations only.
² 30 days.³ A. m. and p. m. observations.
⁴ Corrected to 24-hour mean.

Over most of the ocean there was a slight decrease in fog, but a general and considerable increase in the number and force of gales. Fog, however, showed a decided increase along the American coast from Vancouver to the upper part of the Peninsula of California, and particularly between North Head and San Diego, where available reports indicate its occurrence on more than 50 per cent of the days.

Gales were frequent along the northern routes, in some part of which they occurred daily, and over the middle part of the route between Honolulu and Puget Sound.